

cc sent Wygant
10/23/45

CM

S
CONTROL - Wasatch
Insect

Salt Lake City, Utah

October 12, 1945

REPORT ON 1945 INFESTATIONS
OF BLACK HILLS BEETLE IN
LODGEPOLE PINE

The Inspection

With the exception of the heavy infestations in the Rock Creek, Grandaddy, and Squaw Basin Control Units the beetle activity over the forest is at a low ebb as noted by Miles and Wygant on their general inspection trip. There are infested trees to be found in all of the areas where we have had control jobs over the past twelve years but no indication of aggressiveness except in the areas mentioned.

I have been familiar with the Rock Creek, Grandaddy, and Squaw Basin infestations for about ten years and have watched them rise in a more or less gradual trend to the high point reached this year. During that time the area of infestation has remained about the same but the numbers of infested trees have increased considerably. It is all within the Primitive Area with no prospect of being logged out. There have been four control jobs since 1931, none complete, and all costly except the job with CCC's in the fall of 1935.

Treating on the Wasatch the last two years has run \$7.25 to \$8.50 a tree. This would make a bug job in the Rock Creek area run two to three hundred thousand dollars if labor were available. Labor for a bug job this fall is not in sight.

Just as a matter of interest this is what the infestation picture on these three drainages has looked like since 1933 when the first organized survey was made.

Numbers of Infested Trees

Year	Fish Creek	Rock Creek	Squaw Basin
1933	66	445	0
1934	331	1,516	0
1935	1,504 (907 treated)	1,306 (472 treated)	169
1939	2,700 (488 treated)	2,400	900
1940	2,408	9,184	547
1941	3,840	11,720	680
1942	1,974 (236 treated)	6,825	160
1943	2,640	4,320	-
1944	3,720	8,840	1,360
1945	4,300	26,700	2,900

23,483 73,256 £ 96,739 8,700

Practically all of these infested trees were estimated from $1\frac{1}{4}$ to $2\frac{1}{2}$ per cent surveys and the figure for this year is based on a selected sample strip survey, obtaining an average tree per acre figure, and applying this to the entire infested area. The figures, therefore, show nothing more than trend. It is not possible to get a good foundation for control estimate with less than a 5% cruise.

During the progress of this infestation, which is the heaviest in Rock Creek, small areas of timber have been killed out, and are taken over by aspen, browse, grass and young spruce and lodgepole pine. The extra feed produced has added considerably to the relief of this cattle allotment and about 50 head of cattle could now be supported in the Fish Creek drainage where ten years ago there was no grass or browse whatever. The ranger is considering the construction of a couple of trails across Fish Creek so this new supply of feed can be utilized and contribute relief to the Rock Creek allotment.

New attacks are occurring in trees as small as 5-inches in diameter breast height and in these the mature attacking adults run about half the size of the Black Hills beetles in ponderosa pine. Trees six inches in diameter are hit quite commonly. All new hits are heavy although many are in trees partially killed last year. There is no question that the infestation in all three drainages is in an extremely aggressive condition. It is also characterized by the manner in which it is limited to the same area it occupied ten years ago and being separated from adjoining bodies of timber in a very distinct line.

The Survey

The two men hired for the survey both backed out at the last minute so I decided to survey the area alone rather than spend any more time looking for and training men. I spent the week of September 17th to 22 running enough strip in each drainage to get a good per acre figure. The places the strips were run were chosen as representing average condition of the infested areas and the line strip run on a $2\frac{1}{2}$ percent basis was confined to timber type. The per acre figure obtained in this way was applied to the infested acreage for the total estimate obtained.

In the Blacksfork area one man, Kenneth Clark, was obtained for a week and after he had been trained we ran a $2\frac{1}{2}$ per cent survey in an area of about 2 sections above and below the Blacksfork Guard Station where some red-tops were beginning to show up. A $2\frac{1}{2}$ percent survey was also made on the Muddy Creek and Hayden Units in a small area where some infested trees ~~xxxx~~ appeared last year. Nothing serious developed from either of these surveys. There has been no previous history of infestation in the latter area mentioned. Attacks were all basal, low, one-sided, pitched out, or in trees attacked last year. Infested trees are scattered through these areas as well as through all other areas previously treated on the forest. The 260 trees estimated in the Blacksfork area means there are more infested trees there than there were a year ago. If we get any such increases as we did in 1939 and 40 this could easily develop into another serious condition. The area treated last in 1941, is one to watch closely. There are also a few bug signs appearing between the Hewinta Guard Station and the Wyoming State line and also in the vicinity of the Blacksfork Commissary.

If labor and funds are available next spring we are in a good position to concentrate all effort on the "sore toe" of the Wasatch before there is another outbreak on some more valuable area. However, considering all factors, I personally, am not in favor of doing anything toward controlling the Rock Creek infestations unless they show some indication of "climbing out of the hole." I am convinced this procedure would, in final analysis, be proper and in harmony with most of the aspects of good forestry. However, the fact remains, this infestation in the Rock Creek area reminds me of the old Beaverhead days. It's a real one.

Costs chargeable to survey funds are as follows:

Wages of Kenneth Clark	\$36.57
Pickup rental - 737 miles @ 5¢	36.85
Per diem expenses @ \$2.40 per day	27.00
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	\$100.42

Submitted 10/11/45



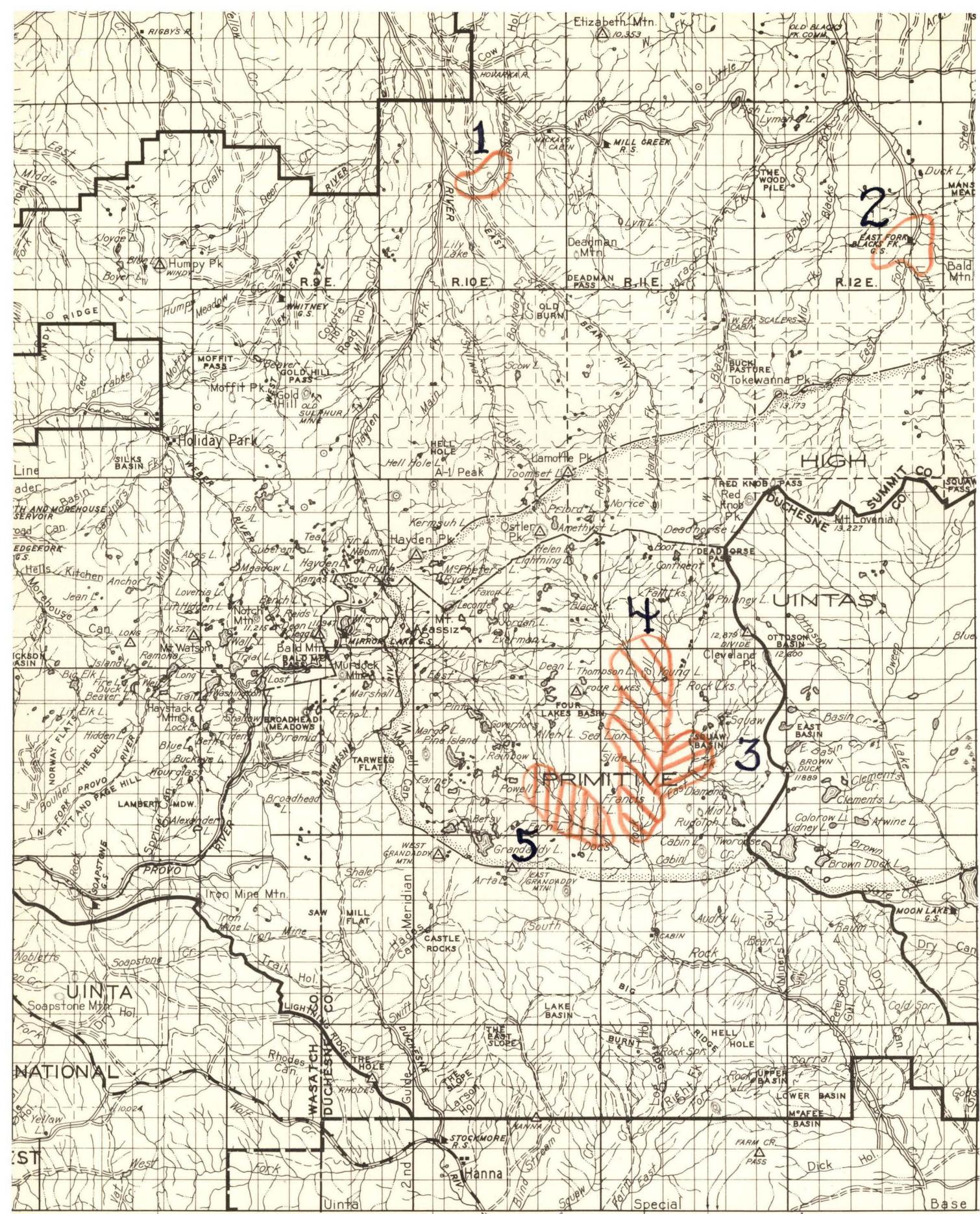
Lowell J. Farmer

INSECT SURVEY SUMMARY - 1945

MAP NO.	UNITS	PERCENT SURVEY	ESTIMATED	ESTIMATED	ESTIMATED TOTAL N.A.	ESTIMATED	TOTAL COST
			INF. AREA	N.A. PER A.		TREATING COST PER TREE	
1.	Muddy Creek and Hayden	2.5	640	0.031	20	8.00	160.00
2.	Blacksfork	2.5	1500	0.174	260	8.00	2,080.00
3.	Squaw Basin	Est. #	1300	2.25	2,900 (1)	10.00	29,000.00
4.	Rock Creek	Est. #	6600	4.04	26,700 (2)	10.00	267,000.00
5.	Fish Creek	Est. #	2100	2.05	4,300 (3)	10.00	43,000.00

Based on strip survey of selected representative part of the infestation and applied to total infested area.

- (1) A 1:2.18 increase over last year's estimate.
- (2) A 1:3 increase over last year's estimate.
- (3) A 1:1.15 increase over last year's estimate.



1945 - Insect Control Survey
Wasatch National Forest!

R.IOW.

R.9 W.

R.8W

R. 7 W.

R.6W.

Mate - See corresponding numbers
on Insect Survey Summary.